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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,462	11/13/2000	Erik Larsen	5089-2PUS/CIP	7912

7590 03/23/2005  
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EXAMINER

NASSER, ROBERT L

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/711,462

Applicant(s)

LARSEN, ERIK

Examiner

Robert L. Nasser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-9, 13-21, 28-32, 36-38, 42-50, 57 and 58 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 10-12, 22-27, 33, 35, 39-41 and 51-56 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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Before beginning, the examiner notes that the apparatus claim find support in the parent applicant, and thus are entitled to the 1991 filing date. However, the method claims are not supported by the parent, 08/094161, and therefore have a filing date of 11/13/2000.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being anticipated by Diamantopoulos et al 4930504 in view of Yamada 5,077588. Diamantopoulos shows a device having a base, an applicator 60 that is moveably attached to the base via an arm, and at least multiple light sources that emits light at 600, 900, and 1200 nm (approximately) in addition to ultraviolet light. In addition, the light source is a semiconductor laser diode. Yamada et al teaches a multi-color semiconductor light source that emits multiple colors simultaneously. It states in column 6, lines 8-14 that the source may be modified for many different embodiments, i.e. wavelength combinations. As such, it would have been obvious to modify Diamantopoulos et al to use a multi-color source in place of the multiple sources, to simplify the design of the device. In addition, the frequency of operation, and pulse width is in the claimed range. With respect to the voltage supplied to the sources, the exact voltage would have been obvious to one skilled in the art. The examiner notes

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that Diamantopoulos meets the limitations of claim 8, except for the circuit board. The exact mounting structure would have been a mere matter of design choice. Claim 9 is rejected in that the examiner takes official notice that it is obvious to use a lens on a light treatment device, to focus the light to a desired location.

Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in the background section in view of Diamantopoulos et al and Yamada et al. In the background section, applicant states that the recited method is well known. However, no light source is disclosed. The Diamantopoulos/Yamada combination shows a light source that meets the claim structure. From this teaching, it would have been obvious to modify the method to use the device of Diamantopoulos and Yamada, as it is merely the use of a known dermatologic device in a dermatologic method.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in view of Diamantopoulos et al and Yamada et al, as applied to claims 13 and 17 above, further in view of Meserol. Meserol further teaches that in photodynamic therapy, the photosensitizer may be applied topically in a lotion, with a pill, or with an injection. It would have been obvious to modify the above method to use apply the photo agent using one of these methods, as it is merely the use of a well known method for applying a drug in the art.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admission in view of Diamantopoulos et al and Yamada et al, as applied to claims 13 and 17 above, further in view of Vogel et al. Vogel et al teaches using

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dimethyl sulfoxide in combination with a photosensitizer to enhance absorption. Hence, it would have been obvious to modify the above combination to use dimethyl sulfoxide, to enhance absorption.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in view of Diamantopoulos et al and Yamada et al, as applied to claims 13 and 17, further in view of Chen et al. Chen et al teaches that depending on the photosensitizer used, the patient should stay out of the sun for 2 days to 6 weeks. Hence, the ranges claimed are taught and it would have been obvious to modify the above combination to follow this advice, so as to prevent unwanted after effects. The exact dosage would have been obvious to one skilled in the art.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamantopolous in view of Yamada as applied to claims 1-3, 5, 7, 8, and 9 above, and further in view of Stanco et al 4614190. Stanco et al teaches a treatment system for activating a photo-activatable chemical, where the pulse duration of treatment is 20-50 nanoseconds. Hence, it would have been obvious to modify the above combination to use the pulse duration of Stanco, as it is merely the use of one known treatment duration for another.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in view of Diamantopolous of Yamada as applied to claims 13 and 17 above, and further in view of Stanco et al 4614190. Stanco et al teaches a treatment system for activating a photo-activatable chemical, where the pulse duration of treatment is 20-50 nanoseconds. Hence, it would have been obvious to modify the

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above combination to use the pulse duration of Stanco, as it is merely the sue of one known treatment duration for another.

Claims 30-32, 34, and 36-38 are rejected under 35 U.S.C. 103(a) as being anticipated by Diamantopoulos et al 4930504 in view of Hong et al 5138624.

Diamantopoulos shows a device having a base, an applicator 60 that is moveably attached to the based via an arm, and at least multiple light sources that emits light at 600, 900, and 1200 nm (approximately) in addition to ultraviolet light. In addition, the light source is a semiconductor laser diode. Hong et al teaches a multi-color laser diode that emits multiple colors simultaneously. It can produce various wavelength combinations. As such, it would have been obvious to modify Diamantopoulos et al to use a multi-color source in place of the multiple sources, to simplify the design of the device. In addition, the frequency of operation, and pulse width is in the claimed range. With respect to the voltage supplied to the sources, the exact voltage would have been obvious to one skilled in the art. The examiner notes that Diamantopoulos meets the limitations of claim 37, except for the circuit board. The exact mounting structure would have been a mere matter of design choice. Claim 38 is rejected in that the examiner takes official notice that it is obvious to use a lens on a light treatment device, to focus the light to a desired location.

Claims 42 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in the background section in view of Diamantopoulos et al and Hong et al. In the background section, applicant states that the recited method is well known. However, no light source is disclosed. The Diamantopoulos/Hong

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combination shows a light source that meets the claim structure. From this teaching, it would have been obvious to modify the method to use the device of Diamantopoulos and Yamada, as it is merely the use of a known dermatologic device in a dermatologic method.

Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in view of Diamantopoulos et al and Hong et al, as applied to claims 42 and 46 above, further in view of Meserol. Meserol further teaches that in photodynamic therapy, the photosensitizer may be applied topically in a lotion, with a pill, or with an injection. It would have been obvious to modify the above method to use apply the photo agent using one of these methods, as it is merely the use of a well known method for applying a drug in the art.

Claims 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admission in view of Diamantopoulos et al and Hong et al, as applied to claims 42 and 46 above, further in view of Vogel et al. Vogel et al teaches using dimethyl sulfoxide in combination with a photosensitizer to enhance absorption. Hence, it would have been obvious to modify the above combination to use dimethyl sulfoxide, to enhance absorption.

Claims 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in view of Diamantopoulos et al and Hong et al, as applied to claims 42 and 46 above, further in view of Chen et al. Chen et al teaches that depending on the photosensitizer used, the patient should stay out of the sun for 2 days to 6 weeks. Hence, the ranges claimed are taught and it would have been obvious to

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modify the above combination to follow this advice, so as to prevent unwanted after effects. The exact dosage would have been obvious to one skilled in the art.

Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamantopolous in view of Hong et al, as applied to claims 1-3, 5, 7, 8, and 9 above, and further in view of Stanco et al 4614190. Stanco et al teaches a treatment system for activating a photo-activatable chemical, where the pulse duration of treatment is 20-50 nanoseconds. Hence, it would have been obvious to modify the above combination to use the pulse duration of Stanco, as it is merely the sue of one known treatment duration for another.

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission in view of Diamantopolous of Hong et al as applied to claims 13 and 17 above, and further in view of Stanco et al 4614190. Stanco et al teaches a treatment system for activating a photo-activatable chemical, where the pulse duration of treatment is 20-50 nanoseconds. Hence, it would have been obvious to modify the above combination to use the pulse duration of Stanco, as it is merely the sue of one known treatment duration for another.

Claims 4, 6, 10-12, 22-27, 33, 35, 39-41 and 51-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4 and 33 define over the art in that none of the art has the sensors to measure reflected light for feedback control. Claims 6 and 35 define over the art in that



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none of the art shows multiple applicators hinged together, as claimed. Claims 10-12 and 39-41 define over the art in that none of the art has the head comprising a rotatable expander, as claimed. Claims 22-25 and 51-54 rejected in that none of the art teaches a photosensitive substance that is L-phenylalanin or amni visnaga. Claims 26-27 and 55-56 define over the art in that none of the art determines the dosage based on the color change.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is (571) 272-4731. The examiner can normally be reached on Mon-Fri, variable hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert L. Nasser  
Primary Examiner  
Art Unit 3736

  
ROBERT L. NASSER  
PRIMARY EXAMINER

